

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Paul A. Stucky
Serial Number: 10/598,044
Filed: 08/16/2006
Group Art Unit: 2837
Examiner: Chan, Kawing
Confirmation No.: 9489
Title: ELECTRICAL SIGNAL APPLICATION STRATEGIES
FOR MONITORING A CONDITION OF AN ELEVATOR
LOAD BEARING MEMBER

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant respectfully requests pre-appeal brief review of the final rejections in the Office Action mailed on March 15, 2010 because there is no *prima facie* case of obviousness. The Examiner's proposed combination does not provide the result that the Examiner contends. Further, the proposed combination cannot be made because the legally required reason for making it is missing.

The Examiner has rejected the claims based upon the proposed base combination of the *Robar* (WO 00/58706) and *Bernard* (U.S. 6,601,448) references. For purposes of rejecting some of the claims, the Examiner has added additional secondary references.

The Examiner is incorrect about what the proposed base combination would provide. The Examiner suggests that the *Robar* reference could be modified by the *Bernard* reference to establish applying an electrical signal to a tension member in an elevator load bearing member such that the signal comprises a plurality of pulses having a duty ratio that is less than 10%. The Examiner correctly admits that the *Robar* reference does not have any teaching regarding using any pulses for the resistance measurement that occurs in that reference. Instead, the *Robar* reference teaches a “floating stable constant current source that is used so that voltage can be measured across a rope 602.” The *Robar* reference teaches determining a resistivity of the rope based upon the known input current from the constant current source and determining the voltage in and voltage out. The *Robar* reference teaches using the resistance measurement as an indication to eventually replace the rope.

The Examiner proposes to use pulses from the *Bernard* reference for purposes of modifying the resistance measuring technique of the *Robar* reference. What the Examiner apparently has overlooked, however, is that the pulses in the *Bernard* reference are never used for a resistance measurement. Instead, the pulses are used to heat resistive wires in a mass flow meter. The slope of the cooling curve of the wire to which the pulses are applied is examined between successive pulses. This is explained, for example, in column 3, lines 32-36 and 55-67. The pulses in the *Bernard* reference are used to heat the wire, not to provide any measurement of resistance. Instead, the *Bernard* reference uses the cooling curve of the wire to provide an indication of the type of fluid flowing through the mass flow meter.

It follows that even if one were to add the pulses from the *Bernard* reference to the *Robar* reference, that would not provide a “simple substitution” (as suggested by the Examiner) of *Robar*’s constant current source with a pulsed current source for purposes of measuring

resistance. The pulses in the *Bernard* reference do not provide any indication of resistance. Therefore, the proposed combination does not provide a result consistent with what the Examiner suggests. It follows that there is no *prima facie* case of obviousness.

Additionally, the proposed combination cannot even be made. There must be a legally sufficient reason for making a proposed combination in order to establish a *prima facie* case of obviousness. This is recognized in the same KSR decision that the Examiner relies upon for the “simple substitution” analysis that the Examiner provides. There is no reason for making the proposed combination in this case because there is no benefit from it. Where there is no benefit or reason for making a proposed combination, the legally required reason is missing and there is no *prima facie* case of obviousness.

As already mentioned, the pulses in the *Bernard* reference are used to heat the wire so that the wire can cool between pulses and that cooling can provide an indication of the type of fluid flowing through a mass flow meter. There is absolutely no use for such information in the context of the *Robar* reference. Therefore, there is no reason whatsoever to include the pulses of the *Bernard* reference into the *Robar* reference. Without any reason for making the combination, there is no *prima facie* case of obviousness.

Further, heating the cords in the *Robar* reference using the pulses from the *Bernard* reference would potentially introduce problems. Heating the cords in *Robar*'s elevator belt would likely cause localized melting of the jacket covering over the cords. That would be undesirable for at least the reasons of potentially distorting the shape of the jacket and reducing the bond between the cords and the jacket at the interface between them. Those of skill in the art of elevators would not look to the teachings of the *Bernard* reference as providing anything useful for an elevator system. In fact, they would consider those teachings more harmful than

beneficial. Again, without any benefit, the proposed combination cannot be made and there is no *prima facie* case of obviousness.

Additionally, the pulses of the *Bernard* reference (assuming the Examiner intended to substitute those in for the constant current of the *Robar* reference) would remove the intended feature of the *Robar* reference of providing a constant current for resistance measurement. A proposed modification to a reference cannot remove an intended feature from it when attempting to manufacture a *prima facie* case of obviousness. This is yet another reason why the Examiner's proposed combination cannot be made.

Lastly, there is nothing in the *Bernard* reference that suggests the specific duty cycle of Applicant's claims. The Examiner's suggestion that *Bernard's* disclosure of "a well determined cyclic ratio" would have rendered Applicant's particular duty ratio obvious is based upon the premise that "the general conditions of a claim are disclosed in the prior art" and that discovering an optimum or workable range would involve only routine skill in the art. Given that the Examiner has not established that the general conditions of Applicant's claim are disclosed in the art, it is not possible to extrapolate from that to say that any particular range would be within the skill of one in the art. In this case, there is no teaching of using any pulses for the purposes suggested by the Examiner. The heating accomplished by the pulses in the *Bernard* reference has nothing to do with resistance measurement as taught by the *Robar* reference. Therefore, it is impossible to extrapolate from the "well defined cyclic ratio" of the *Bernard* reference to the particular duty ratio of Applicant's claims.


Given that the Examiner's proposed combination of references does not establish the result that the Examiner contends, there is no *prima facie* case of obviousness. Even if the combination could be made, it does not provide a result sufficient to establish a *prima facie* case

of obviousness. Further, the proposed combination cannot be made for any of the reasons given above.

The proposed addition of a third reference to the base combination of the *Robar* and *Bernard* references for purposes of rejecting Applicant's claims 3-5, 9-12, 15 and 17-19 does not do anything to remedy the defects in the base combination discussed above. Therefore, none of the Examiner's proposed combinations establish a *prima facie* case of obviousness against any of Applicant's claims. All rejections under 35 U.S.C. §103 must be withdrawn.

Respectfully submitted,

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